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Bulletin

® NTA

NATIONAL TUBERCULOSIS ASSOCIATION

NEW HORIZONS IN RD

respiratory disease

FEB 20

NATIONAL
TUBERCULOSIS
ASSOCIATION

Bulletin

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Education Comes First in RD

■ PULMONARY TUBERCULOSIS is a respiratory disease. Physicians in clinical practice who have long dealt with tuberculosis problems have been dealing with the many other respiratory disorders at the same time. To them, the newly expanded interests of the NTA are nothing new at all. People, lungs, money, ignorance, breathing, coughing, medical care, and rehabilitation are common to many respiratory disorders, including tuberculosis.

Anti-tuberculosis work is appealing, for tuberculosis is a contagious disease and it is curable. The screening of large numbers of people on mobile X-ray units through the use of minifilm (70 mm.) has been an attractive program "gimmick" for tuberculosis associations. However, some of the greatest accomplishments of the tuberculosis associations came before we had minifilms, before much was known about causes of tuberculosis and before treatment had cures to offer. The anti-tuberculosis movement was not a medical enterprise; it was a social and educational project and as such made lasting contributions to the civilization of this century. It taught a disbelieving world that tuberculosis is not inherited, that it is vulgar to spit on the sidewalk, that poverty and disease were inseparable enemies of the human race.

Today we lack a medical program against many respiratory diseases. We must not overemphasize the need for a medical program. We should not anticipate a "gimmick" for all respiratory disease screening which matches the use of minifilm. We have more fundamental work to do first, and this is work that the "Christmas Seal Organizations" are extremely well qualified to do.

The general public is nearly as ignorant of other respiratory diseases today as it was of tuberculosis fifty years ago. Physicians see patients from all strata of society who have been short of breath for many years but who did not seek medical diagnosis until great lung destruction had taken place. Others have a cigarette cough which has gradually become unbearable, but they sought medical care too late. Some have neglected asthma symptoms, bronchitis symptoms, pleurisy and a host of less obvious complaints because there was nobody to tell them that such complaints can be a foretaste of disabling lung or heart diseases.

As a nation we waste multiplied millions of dollars on useless or potentially harmful "remedies" for respiratory complaints. Even some who read these words will disagree with proven expert opinion that vitamins do not prevent colds, that penicillin may do harm and cannot do good when you have the sniffles, that there is no preventive or curative value to the countless nostrums and near nostrums which blight your television screen, promising "instant action" against respiratory complaints.

The "Christmas Seal Organization" has much enlightenment to offer in a neglected field of public health. This field has been neglected because it is a difficult one. No other organization is so well qualified to take the lead in it. We have the workers with skill and dedication. We have the finest truly voluntary fund-raising method. We have experience and organization. And finally, we have recognized the need.

In time, we shall have a medical program of service and research and possibly a "screening method" for respiratory disorders. But we must give first priority to health education—education of our staff members, our board members and committees and, finally, education of the public.

H. CORWIN HINSHAW, M. D.
San Francisco, California

RD RESPIRATORY DISEASE

PROGRAMMING MOVES AHEAD

—A glimpse at local and state association activities

Materials—screening programs—medical and social research—board and staff orientation—education of the public—postgraduate and medical education—community action

RD MASSACHUSETTS coordinates programs

Frances R. Ogasawara

■ AMONG ITS MANY TRADITIONS, the state of Massachusetts counts one that strengthens its voluntary health associations: citizens traditionally take part in civic affairs. Did you know, for instance, that Paul Revere, famous for his midnight ride and his silverwork, is also well known in public health circles as a member of the Boston Board of Health?

The respiratory disease program in Massachusetts has evolved during the past three years through natural interests and needs which became evident in our TB program. It has not been a crash program with splashy announcements, and it certainly has not replaced our TB program.

Massachusetts has a valuable resource in the public-spirited members of the medical profession in Boston, one of the top medical centers of the world. The Massachusetts Thoracic Society is very active, and its individual members participate in the affairs of the Massachusetts Tuberculosis and Health League with great interest.

The Massachusetts Thoracic Society has given the non-medical board members and the staff of the League an understanding of the problems in respiratory disease and the importance of working toward community programs which will help to control these diseases. Even though our associations have plenty to do to meet TB problems in Massachusetts, we feel there is much that we can do in a respiratory disease program, particularly in chronic respiratory diseases such as emphysema and bronchitis.

Started in a small way

Admittedly, the respiratory disease field is broad, but we did not want to close our eyes to it entirely just because of the magnitude of the entire program. We started in a small way in order to become familiar with the diseases and the problems associated with them.

In the spring of 1957, Rolf Eliassen, Ph.D., of the Massachusetts Institute of Technology spoke on air pollution at the League's Annual Meeting. Metropolitan Boston, like many large communities, has a growing air pollution problem.

The Asian influenza epidemic in the fall of 1957 brought the respiratory disease program into sudden focus. At the fall meeting of the League's board, Roy F. Feemster, M.D., Director of the Communicable Disease Division of the Massachusetts Department of Public Health, spoke on the epidemic and suggested ways that TB associations could assist. We were primarily concerned with making the vaccine available for priority groups, particularly TB patients, ex-patients, and those with other chronic respiratory conditions.

The League appointed me, as a member of the field staff, to coordinate information and keep local associations supplied with the latest developments. Local associations promoted use of the vaccine, and one association set up a system for pooling vaccine orders. Small amounts of vaccine were not available at that time, but by pooling orders, the local boards of health were able to ensure that priority groups were protected.

In time, the staff assignment evolved into the larger job of planning, developing and coordinating programs in respiratory disease. By 1959, this assignment was a major responsibility for me. By having the responsibility for all aspects of respiratory disease program centered in one staff person, it was possible to keep the program moving forward on a systematic basis.

Board and staff education

Since 1957, half of the programs of the Massachusetts TB and Health League's board meetings have been devoted wholly or partly to respiratory disease. Among these programs was an address on airborne contagion; a flannel board presentation on respiratory disease programs in the state; reports on American Thoracic Society statements by our representative director to the National Tuberculosis Association; and highlights of NTA statements on lung cancer and smoking by an ATS member. At our last annual meeting we had a demonstration and explanation of a machine which measures the breathing capacity of the lung; everyone present at the meeting had an opportunity to take a breathing test. Our Board newsletter, *For Your Information,* has regularly published information about respiratory disease.

In order to orient state and local staff members, a state-wide conference was held. Physicians from the Massachusetts Thoracic Society reviewed medical aspects of respiratory diseases, and NTA staff members suggested programs that TB associations might consider. The great interest of the association workers was evidenced by their close attention, despite oppressive heat during the day and swarms of mosquitos in the evening.

Mimeographed materials, including two special notebooks, have been prepared for workers. The notebooks consisted of background materials on the diseases, statistics and program suggestions. Sample copies of publications and mimeographed reports on subjects such as smoking, screening programs, and air pollution, have been distributed.

Another regular channel of information is the League's *News Bulletin,* a biweekly mimeographed newsletter which is directed to local association workers. Articles

Among the educational materials prepared by the Massachusetts association is this exhibit on lung damage. It has been used at meetings for tuberculosis nurses, TB workers, and public health personnel.

on respiratory diseases have appeared in over three-fourths of the issues from September, 1957, to June, 1959 and in every issue since June, 1959.

Other educational materials prepared by the League include a flyer on the breathing test (Timed Vital Capacity Test) for use in a local testing program; radio spot announcements for the Christmas Seal Campaign; and an exhibit entitled "Lung Damage" for use with professional groups. The exhibit features a whale with winking eye (whales have enormous lungs). It has been used at meetings of the Massachusetts Conference of Tuberculosis Workers, the Massachusetts Public Health Association, the Massachusetts League for Nursing, the Massachusetts Student Nurses Council, the New England Health Education Association, and a regional institute on chronic disease.

Local association programs

League staff assistance is available to local associations for planning and conducting programs as well as for background and consultation. Activities have ranged from serving at committee meetings to running a calculator.

Two-thirds of the local associations have done some pioneering in the field of respiratory disease. Five have featured speakers or discussions on respiratory disease at board meetings and annual meetings. Four other associations have promoted respiratory disease information through their newsletters. Two associations have sparked radio programs on smoking and on air pollution. One is also working on a cooperative basis with the state cancer society on an anti-smoking educational program for teenagers. Associations that conduct X-ray survey programs for selected groups have been working to develop methods for arranging follow-up procedures for non-tuberculous conditions, such as tumors, suspected lung cancer, and suspected emphysema as well as for TB.

Community Surveys

At the two-day state conference for TB workers held this fall, several sessions on respiratory disease programs were featured: a background session on the overall field, one on smoking and lung cancer, and firsthand reports of two community survey programs in Massachusetts.

The community surveys offered a breathing test, together with a chest X-ray, and were conducted in two areas, one rural and one urban. The breathing test (the Timed Vital Capacity Test) measures the amount of air a person can breathe out in one second and three seconds. Results give the physician some further indications, in addition to the chest X-ray, as to the condition of the lungs.

The surveys served two additional purposes: (1) Information was gained on techniques of mass testing apparently healthy people. (2) Details of conducting a screening procedure different from the familiar X-ray were learned. There were a couple of interesting sidelights. In one survey, the local executive who gave the tests was completely exhausted from demonstrating them to each person. In the other survey, several women were found to have very low readings. Comparison with the X-ray revealed that the "restrictive clothing" worn by these women had strongly affected the reading.

Two associations are exploring the need for establishing community facilities. One helped to establish a pulmonary function laboratory in a general hospital through a $1,000 grant towards the salary of a director. Another association made a $1,000 grant to a local health department for a detailed study of the respiratory cripples being cared for in the chest clinic, and also for the purchase of some necessary equipment for this purpose. The study may reveal what clinic facilities are necessary for patients with chronic respiratory disease.

The TB associations in Massachusetts will continue to find ways to meet the challenge of chronic respiratory disease. Of prime importance in planning and carrying out these programs are the public-spirited citizens who make up the boards of TB associations. It is they who must give their interest and enthusiasm to the community's battle against respiratory disease. «

Frances Ogasawara is program associate in statistics and health education with the Massachusetts Tuberculosis and Health League. Following her completion of studies for her degree in public health at Yale University, she was associated with the Waterbury, Conn., association as a health educator. Currently, Miss Ogasawara is recording secretary of the New England Health Education Association.

Mrs. Mary B. Gorny, R.N., Scranton, supervises treatment by intermittent positive pressure machines. The machines increase pressure within the lung on expiration and inspiration, thus affording relief to the patient. A total of eight machines were donated by the local tuberculosis association and the United Mine Workers to general hospitals and clinics.

R D PENNSYLVANIA generates action

Merrill L. Dawson

■ DURING THE PAST TWO YEARS, the Pennsylvania Tuberculosis and Health Society has been actively exploring the program opportunities in the broad field of respiratory diseases. We—board and staff of the PTHS and its affiliates, the Pennsylvania Trudeau Society and the Pennsylvania Conference of Tuberculosis Workers—believe sincerely that the health problems created by respiratory diseases offer a wide and exciting opportunity for community services. This undoubtedly was the way that a much smaller group of people felt about tuberculosis back in 1892 when the first voluntary tuberculosis society, the Pennsylvania Society for the Prevention of Tuberculosis, was formed. At that time there was no unanimity of opinion concerning the cause of tuberculosis, its treatment and prevention. Today we cannot say that we in Pennsylvania have unanimity of opinion as to just what role the tuberculosis society can and should play in meeting the broader and less defined problems in the field of respiratory diseases, but we are convinced that the need is great. During the three-year period 1957-59, respiratory diseases as a group accounted for 10 per cent of all deaths occurring in Pennsylvania, and the death rate of these diseases was 106.4 per 100,000 population.

In broadening our scope of activities, we are fully aware of the fact that TB is still a sizeable problem in Pennsylvania—one that is causing us to perfect and speed up our offensive on all fronts. This fact has not been a deterrent to initiating a respiratory disease program, for the following reasons:

- TB is a respiratory disease which is adversely affected by complications of other respiratory diseases.
- To use present methods in the study of the etiology, diagnosis and treatment of tuberculosis to the exclusion of reciprocal effects with other respiratory diseases is a wasteful use of techniques and resources, as well as a failure to help mankind when it is possible to do so.
- Consideration of respiratory diseases in all their ramifications can and should give a major assist in meeting TB problems.
- To explore and develop preliminary respiratory disease programs does not require significant financial obligations.

In initiating the respiratory disease program, we recognize that those of us who lack medical training must learn more about the medical aspects. We also believe that as we learn more and gain greater confidence, we will need more help from more kinds of physicians and scientists than we have in the past.

Since the first step is to gain basic knowledge, a series of orientation conferences was initiated.

First, at the fall conferences of 1958 for all professional workers in the state, two NTA staff members presented a half-day session on some of the basic facts and program implications of respiratory diseases.

Second, a qualified chest specialist was invited to present to the PTHS staff members a brief description of the various types of respiratory diseases that may be involved.

Third, the Pennsylvania Trudeau Society conducted an intensive two-day conference for all full-time executive secretaries. This conference was held in March of 1959 and was limited to a description of the significant acute and chronic respiratory diseases, as well as the medical

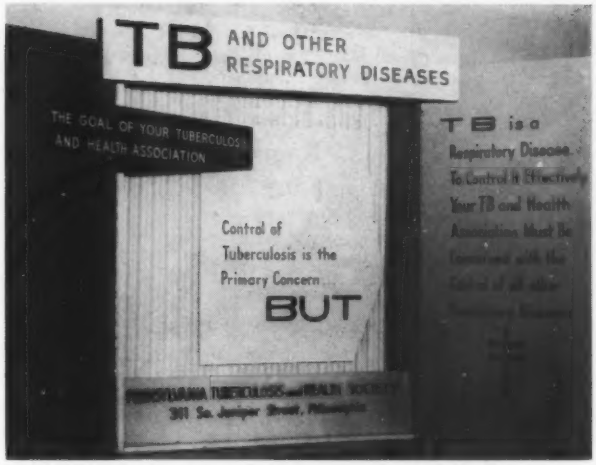
aspects, problems of control, and research needs in the area of air pollution.

Fourth, the fall conference in September, 1959, for professional TB association workers and board members was planned and executed by a select faculty of Pennsylvania Trudeau Society members. This three-day weekend conference included presentations by experts from other states on environmental factors affecting respiratory diseases and emphasis upon the etiology, treatment procedures and program implications for tuberculosis associations.

Since early 1959 three respiratory disease committees –one each from the Pennsylvania Tuberculosis and Health Society, the Pennsylvania Trudeau Society and the Pennsylvania Conference of Tuberculosis Workers– have played extremely important roles in providing leadership for all program planning. These committees, with appropriate liaison, are pin-pointing the types of information that must be secured, defining the most appropriate initial steps to be undertaken, and providing the essential safeguards for determining administrative and medical policies.

Some of the specific results of these committee recommendations to date are:

1. Active support by board members and affiliates in passage of legislation in 1959 for statewide supervision and control of air pollution. Only through the concerted efforts of tuberculosis associations and other interested groups was the legislation passed over the opposition of vested interests.
2. Development of a leaflet and an exhibit on why tuberculosis associations are in the respiratory disease field.
3. Inauguration of a study in heavily populated Montgomery County (suburban Philadelphia) to determine the facts about respiratory diseases and the most suitable procedures to be followed in obtaining such facts. The PTHS and the National Tuberculosis Association are providing consultation services.
4. Preparation of a special supplement to the PTHS BULLETIN which summarized the latest information on "The Smoking Controversy" for the benefit of teachers and high school students.
5. In 1959-60 two prizes were awarded by the Pennsylvania Trudeau Society to undergraduate medical students for the best essays submitted on a respiratory disease subject. These prizes have been offered again in 1960-61.
6. Adoption by the PTHS Board in April, 1960, of a statement presented by the Pennsylvania Trudeau Society's Executive Committee on the relationship of cigarette smoking to chronic bronchitis, emphysema and cancer of the lung with the recommendation that smoking be discouraged, particularly in young people.


TB AND OTHER RESPIRATORY DISEASES
THE GOAL OF YOUR TUBERCULOSIS AND HEALTH ASSOCIATION
Control of Tuberculosis is the Primary Concern
BUT
TB is a Respiratory Disease

This exhibit explains Pennsylvania's stand clearly: To control TB effectively, associations should be concerned with other respiratory diseases.

This was followed in November 1960 by a joint public statement by the PTHS and the American Cancer Society, Pennsylvania Division, Inc., on the deleterious effects of smoking on health, particularly that of cigarettes.

7. Preparation of a leaflet, "Don't Let Your Health Go Up In Smoke," and an exhibit on the smoking question. Both are directed to the teenager.
8. Development of a fellowship plan by the Pennsylvania Trudeau Society which will make available $5,000 per year to each of the six medical schools in Pennsylvania. These fellowships will be offered to young physicians who express an interest in specializing in diseases of the chest. Each affiliate in Pennsylvania has been invited to make a specified yearly contribution to the Fund.
9. Development of leaflets on bronchitis, emphysema and asthma.
10. A gradual yet steady increase in the attention of affiliates to respiratory disease problems as indicated by the number of affiliates having (4) or planning to have (15) respiratory disease committees as of January 1959; the purchasing of literature and use of exhibits; the providing of intermittent positive pres-

Merrill L. Dawson is Assistant Executive Director of the Pennsylvania Tuberculosis & Health Society. His original experience with the society was as a rehabilitation consultant. Prior to this, he was chairman of the Department of Physical Education at Antioch College, Ohio. He has been active in NCTW affairs and is chairman of the legislative committee of the Pennsylvania Public Health Assn.

sure machines to general hospitals and clinics (e.g., in Lackawanna County three machines were given by the tuberculosis association and five by the Welfare Fund of the United Mine Workers of America, resulting in approximately 11,000 treatments per year); the providing of pulmonary function test equipment for general hospitals; and the development of educational programs for boards and community groups.

11. Authorization for the designation of a staff person to serve as the director of the respiratory disease program of the PTHS.

In addition to the above accomplishments, there are other recommendations, such as the following, that may indicate future developments:

- The preparation of a series of articles on respiratory diseases for publication in state and local medical society journals.
- The preparation of a brochure on respiratory diseases to accompany X-ray survey reports to private physicians.
- A study of the compensation laws to determine if there is need for revision so that persons with pneumoconiosis or other chest disease may be rehabilitated or re-employed.
- A revision of the state IBM chest X-ray survey card so that it will include terminology which is more descriptive of non-tuberculous conditions.
- The development of a chemoprophylaxis program for silicotics who show a positive tuberculin test.
- A suggestion that the Pennsylvania Trudeau Society be asked to consider broadening its membership to include virologists, air pollution experts and others.
- Preparation by the Pennsylvania Trudeau Society of a handbook which would be helpful to physicians for use with patients with obstructive ventilatory diseases.
- An investigation of the relationship between respiratory diseases and occupational health with a view to determining whether significant programs in this area can be developed.

On the basis of present information and evaluations, we believe that there is a major job to be done by tuberculosis associations in the broad area of all respiratory diseases. The major job ahead is to define the role of the tuberculosis association as it relates to: the private physician and practice of medicine; the education of all individuals and groups of people; industrial, school and family health; the control of environmental factors; specific patient services; and research. These relationships and problems, we believe, offer a real challenge—not obstacles—to the tuberculosis association in meeting its responsibilities to the community. «

RD GEORGIA builds wit m

■ YOU WHO KNOW THE EXTENT of the tuberculosis problem in Georgia may wonder why the Atlanta Tuberculosis Association began six years ago to use a substantial slice of its income for non-tuberculosis chest diseases.

At that time we were still trying to obtain an adequate tuberculosis service in Atlanta's tax-supported Grady Memorial Hospital; still trying to get tuberculosis into the curriculum of Emory University School of Medicine on a sound basis, and still trying to bring private physicians into the front lines of TB work.

In the midst of these difficulties, one Atlanta physician hammered continually on the point that managing tuberculosis as a disease entity, separated widely from other chest diseases, was a stumbling block—a mistake. The man who pointed the way was Dr. Carl C. Aven, a private physician in chest diseases and an indefatigable worker for medical and nursing education in tuberculosis and for TB treatment in general hopsitals.

The development of a medical education program in respiratory disease by the Atlanta association was not a matter of mere chance. Through insight and careful planning by both the officials of Emory University and the association, a quickening of interest in the entire field of respiratory diseases was generated both in the medical school and among private physicians.

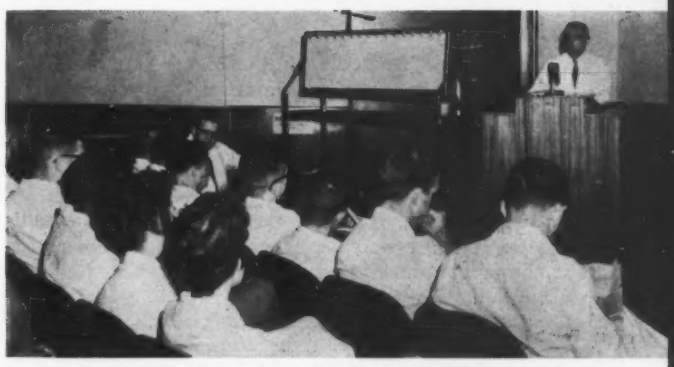
The First Inroad

The program was evolved gradually through a number of steps. In September, 1954, a grant was made to Emory University School of Medicine for the development of facilities at Grady Hospital for handling infectious diseases. Emphasis was to be placed on tuberculosis and the encouragement of teaching and research in these diseases. The facilities were to include a research laboratory, teaching materials, expanded bed facilities for treatment of TB patients, and improved chest clinics for out-patients. Dr. Charles LeMaistre was named to head this program.

Dr. LeMaistre's leadership in developing this program was so impressive that the allotment of time for classroom and clinical bedside teaching of Emory Medical students increased almost immediately.

Marguerite Spilman

wit medical education



The establishment of a full professorship in tuberculosis and pulmonary diseases at Emory University was another milestone. The Atlanta association contributed funds. Dr. Ross L. McLean, who was named to the post in 1958, conducts pulmonary disease therapy conferences, gives courses in subjects related to respiratory disease, and does research.

The Atlanta association's first step in establishing a medical education program in respiratory disease was to grant to Emory University School of Medicine funds for equipping an infectious disease laboratory for Dr. Charles A. LeMaistre. This grant was made in 1954.

Pulmonary Disease Conference

Soon Dr. LeMaistre had a weekly conference under way. Here, discussion of clinical problems in diagnosis and therapy of all forms of chest diseases attracted local practicing physicians, faculty members, residents and medical students. This pulmonary disease therapy conference now is associated with the thoracic surgical and radiology services.

A research laboratory under Dr. LeMaistre was equipped and staffed for several years by the Atlanta Tuberculosis Association for work in tuberculosis, microbiology, and diseases of the chest.

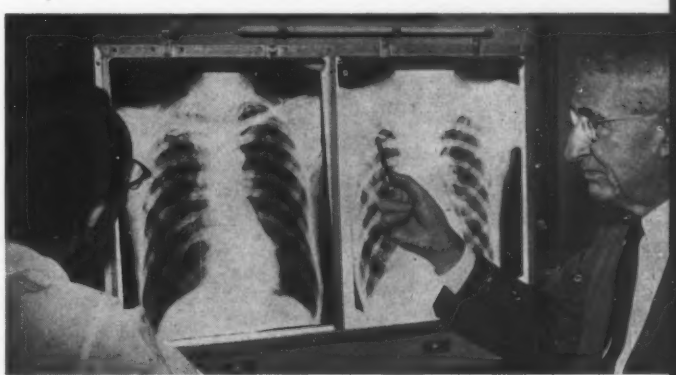
In the fall of 1956, a well-rounded graduate program in degenerative and infectious chest diseases was inaugurated at Emory.

Department Created

In September 1957, a new department of preventive medicine and community health, with Dr. LeMaistre as chairman, was announced by Emory University School of Medicine. This brought the teaching program, Grady Hospital services, and the two county health departments in the area into a splendid working relationship.

Cooperative Programming

For eighteen months, the Association financed a demonstration chest X-ray program in the out-patient department of Grady Hospital for Negro patients with histories of chronic respiratory ailments. The demonstration revealed that 2 per cent of the patients X-rayed in the project had tuberculosis. In addition, it was found that 50 per cent had other chest abnormalities.



Dr. Carl C. Aven, leader in the establishment of facilities for chest diseases at Atlanta's Grady Hospital, is shown interviewing a patient at the county health department. Those with non-tuberculous chest conditions are referred to Grady Hospital or to their physicians.

Establish Professorship

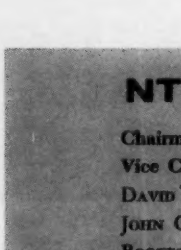
The results of the demonstration X-ray program were so revealing that when the Atlanta association was asked to contribute funds for a professorship in tuberculosis and pulmonary diseases at Emory, we agreed. On March 1, 1958, Dr. Ross L. McLean was named to fill the post, and another chapter of our story began.

Dr. McLean is responsible for the education of medical students and resident staff in the field of tuberculosis and chronic pulmonary diseases at Grady Hospital. He conducts the weekly pulmonary disease therapy conference. In addition, he holds a formal pulmonary disease conference every two weeks. This conference is a regular part of the department of medicine's daily sub-specialty teaching program and is attended by medical students and the resident staff as well as the full-time and volunteer faculty.

At Emory, he has participated as a pulmonary disease specialist in the Department of Radiology, in the Department of Medicine, and in the post-graduate program of the American College of Chest Physicians.

In the Department of Preventive Medicine and Community Health, Dr. McLean gives courses in the epidemiology of tuberculosis, airborne transmission of infectious disease, and the epidemiology of chronic pulmonary diseases. He also serves as consultant in pulmonary diseases at the Veterans Hospital in Atlanta as well as at Emory and Grady Hospitals.

His research work deserves more space than permitted here, but of particular interest are his projects on airborne transmission of infection; corticosteroid hormones as adjuncts to drug therapy of acute forms of tuberculosis; epidemiology of pulmonary disease in industries that produce a considerable amount of harmful dust; usefulness of pleural biopsy in the diagnosis of pleural effusion; and tuberculous peritonitis.



Marguerite Siplman has been executive secretary of the Atlanta association since 1946. She began her working career in physical education and community recreation in Pennsylvania and later became executive secretary of the Carnegie Tech Alumni Federation. Miss Spilman is a past president of the Southern Tuberculosis Conference and the Georgia Conference of TB Workers and has served on various NCTW committees.

Dr. McLean's work goes far beyond the Medical School and local hospitals. He takes active part in the committee work of the Georgia and Atlanta Tuberculosis Associations. He is in constant demand for speaking engagements and for articles in national, state and local medical publications.

The very fact of having a specialist in pulmonary diseases working with the association has given rise to the development of educational programs on respiratory diseases and tuberculosis for both professional and lay groups. They are gaining in popularity. For example, requests from nursing schools for materials and lectures have doubled since new life was injected into tuberculosis subjects by presenting them in programs including other pulmonary and respiratory diseases.

In addition, last spring the association's Medical Advisory Committee sponsored at three local general hospitals a course which drew an attendance of 240 residents and practicing physicians. Credits for the course were given by the American Academy of General Practice. Five sessions were on pulmonary disease; one dealt with pulmonary tuberculosis.

Added to this, the Fulton County Medical Society recently invited the Association to provide a panel for a public forum on respiratory diseases, including a demonstration of pulmonary function measurement by clinical spirometry. Still again, at the Southeastern Fair held in Atlanta in September, the Fulton County Medical Society sponsored demonstrations by voluntary health agencies. The Fulton County Health Department gave tuberculin tests, and Dr. McLean and his assistants gave spirometry tests to throngs who visited the booth of the Georgia and Atlanta TB Associations. The follow-up program for the two tests taxed our ingenuity, but the educational value gained made it worthwhile.

The Association has invested approximately $100,000 in the specific gains reflected in this article. We acknowledge that we have been opportunists, taking advantage of the people's growing concern about respiratory ailments in order to further tuberculosis work. However, we feel that our opportunism has been justified because our respiratory disease program, in addition to being a great challenge in itself, has revitalized interest in tuberculosis among professional, lay, and student groups; and upon these groups depends the attainment of present goals of the tuberculosis program.

NTA Respiratory Disease Committee 1960-61

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SOCIAL RESEARCH

in Respiratory Disease

Odin W. Anderson, Ph.D., and Gerald Gordon

RESEARCH IN THE SOCIAL SCIENCES is becoming increasingly important in the control of disease. Well over 500 social scientists are engaged in research in the health field, and the number is increasing. However, a lack of understanding has often existed between health personnel and social scientists, limiting the effectiveness of social research. Health personnel have frequently judged social research in terms of its immediate usefulness to the solution of their problems. They have not fully realized that social research is similar to all other sciences in that it not only can lead to blind alleys but can also lead to the asking of questions which seem to complicate rather than simplify the problem. The social scientist, on the other hand, has often viewed the problems of health personnel as of little moment. Consequently, he has often restated problems in terms which are important to social scientists but which are relatively useless from the health associations' standpoint.

While it is unrealistic for health personnel to expect quick research "payoffs" from every social research project, it is equally unrealistic for the social scientist to submerge the needs of health personnel to the needs of social science. An effective approach to social research incorporates existing social theory and data and attempts to add to that knowledge in terms of an immediate problem.

In those areas in which the social scientist has been working, health personnel and social scientists gradually have come to understand each other's problems. But, in areas such as respiratory illnesses, where relatively little social research has occurred, problems of mutual understanding can block effective research. To minimize this, we have outlined some research guidelines which may be of help to both health professionals and social scientists.

Research guidelines

When planning research, it is important to keep in mind the purpose of the study and the use of the results. It is necessary to decide whether the problem is relevant to the field, whether it is researchable, and whether data exists or can be obtained. Finally, the problem must be reformulated into research terms—a basic responsibility of the social scientist. In addition, it is important to take into account administrative requirements such as length of time allotted to the study, size of staff, amount of budget, source of funds, and so on. This may seem elementary but both health personnel and social scientists need to be realistic regarding their commitments in time, energy and areas of study. Sometimes health personnel expect solutions that are not feasible under given conditions.

The following working structure is offered as a general framework for social science research in the health field:

1. In any time and place there is an illness and disease pattern. The point of reference is *disease.*
2. In any time and place there are values, attitudes and practices, and levels of health knowledge in regard to ill-being and well-being. The point of reference is the *behavior of people.*
3. In any time and place there are institutions and personnel regarded as of value in handling illness and disease. The point of reference is *means.*

Projects in the first area, which set forth the degree and amount of illness and disease, would be concerned with the distribution of disease in time and space, trends and patterns of disease in the population, and so on. The concepts and techniques of demography and epidemiology would be utilized, and the basic variables that one would be dealing with would be those of age, sex, socio-economic class, place of residence, family type, life cycle, ethnic group, educational level, income, and so on.

Projects in the second area would be concerned with values, attitudes, practices, and the behavior of people in regard to health and disease. The concepts and techniques of sociology, social psychology and cultural anthropology would be utilized here.

Projects in the third area would be concerned with the structure and organization of the health field and would include the study of problems dealing with the nature, number, and range of specialties, personnel, services and facilities and beliefs in relation to people and disease.

Research in any of these areas can contribute to the alleviation and elimination of respiratory illnesses. While a great deal of research has been directed to the first and third areas, area two has been neglected. Of 291 studies concerned with the behavioral and social aspects of disease listed in the Health Information Foundation's *Inventory of Social and Economic Research in Health* during 1954-59, two studies dealt with attitudes and behavior of tuberculosis patients, and there were no studies of the

attitudes and behavior of the general public concerning tuberculosis.

In view of the relationship between socio-psychological factors and the prevalence and prognosis of respiratory illnesses in general and tuberculosis in particular, we feel that much more emphasis should be given to research on beliefs and attitudes. The need for this type of research has not diminished with the increased ability of medicine to treat respiratory illnesses. Despite the great advancements in tuberculosis therapy, the estimated prevalence of tuberculosis in the United States exceeds 2,000,000, and it is estimated that more than 85,000 new cases occur each year. The cost of tuberculosis, excluding medical costs incurred outside the hospital, home care and loss of productivity, is "very conservatively" estimated to be in excess of $700,000,000 a year. When loss of productivity and other costs are considered, the total cost of tuberculosis must be many times in excess of this figure. Furthermore, each major advance in disease control poses problems of professional and public acceptance. For example, both the Salk vaccine program and the X-ray program of the National Tuberculosis Association have encountered marked resistance from various population groups. In a society which depends upon persuasion rather than force, knowledge about attitudes and behavior is an important prerequisite in reducing the time lag between the scientific validation of a technique and professional and public acceptance.

Therefore, in relation to disease control, two major areas can be seen:

1. The relationship between attitudes and beliefs and the prevalence and prognosis of a given illness.
2. The relationship between attitudes and beliefs and the use and acceptance of medical techniques.

The priority given to one or another of these areas depends upon the extent to which existing medical techniques are capable of coping with a disease. If, as in the case of polio, techniques exist which can eliminate the disease as a major health problem, emphasis should be given to studies concerning degrees of resistance to, and acceptance of medical techniques. Where medical techniques are primarily ameliorative and both prevalence and prognosis are felt to be related to how people believe and behave, as in the case of heart disease, area one should be emphasized. In the case of many respiratory diseases and other illnesses, where techniques exist which can limit and control the illness but cannot as yet eliminate it as a major health problem, research should be undertaken in both areas.

For the purpose of this discussion, a few suggested projects in both major research areas follow:

Area 1

Studies of Attitudes and Beliefs Concentrating on Prevalence and Prognosis

A. Stress and other psychological factors as they relate to the incidence of respiratory illness.
B. Attitudes and beliefs related to varying incidence and prognosis in different socio-economic groups.
C. Attitudes and beliefs associated with varying physical response to therapy.
D. Changes in the daily living patterns of persons having tuberculosis or other respiratory illness and the effect of these changes upon prognosis.
E. Attitudes about tuberculosis and respiratory illnesses and hygienic activities.
F. The social image of tuberculosis and community acceptance of the tuberculosis patient.

Area 2

Studies of Attitudes and Beliefs Concerning Use and Acceptance of Medical Techniques.

A. Health knowledge and attitudes as they relate to early diagnosis or respiratory illness.
B. The nature and structure of diagnostic and treatment facilities and their social and psychological impact.
C. Group differences in responsiveness to diagnostic and immunization drives.
D. Methods of more effectively disseminating information concerning respiratory illness.
E. Attitudes and beliefs related to lags in use of proven therapeutic techniques by professional health personnel.
F. Attitudes and beliefs related to patient reluctance to use given therapeutic methods.

While the decision as to which lines of research to follow varies with the special circumstances of the illness being studied, the above projects, we feel, are indicative of types of research that may be profitably undertaken. This is not to imply that research along these lines has never been done, but only that much more is needed. «

Under an NTA-ATS research grant to the Health Information Foundation, Gerald Gordon is working under the direction of Odin W. Anderson, Ph.D., to determine the areas in which social research in tuberculosis and respiratory disease will produce the most valuable results. Dr. Anderson is research director of the Health Information Foundation and social science member of the ATS Research Committee. Prior to his association with HIF, Gerald Gordon directed studies in community health at the Albert Einstein College of Medicine, New York City.

What Needs to be Done

David T. Carr, M.D.

A SURVEY OF FUTURE NEEDS in respiratory disease reveals innumerable opportunities. They might be classified into the broad categories of research and education.

Research is needed to give us more knowledge about various respiratory diseases and ways in which that knowledge can be used to help people afflicted with these diseases. Education is needed in many areas—education of the public, legislative groups and professional groups being at the top of the list. Obviously, some projects will be both educational and research in character.

It is not an oversight that direct service to individuals is omitted from the above classification. Our association resources are hopelessly inadequate to satisfy the demand for direct services, and it would seem wise to leave this problem to the welfare agencies.

Research needs

Opportunities in respiratory disease research are numerous enough to strain association budgets to the breaking point. One must, therefore, be selective. Following are some specific areas where research dollars might pay off:

Acute viral infections of the respiratory tract are so common that we accept them as an inevitable part of life. Progress has been made in the development of effective vaccines against a few of these viruses, but much more research is needed to produce vaccines for a larger variety of viruses and to test them on different groups of people. Other opportunities in the field of virology are studies of prevention of spreading infection by purification of air, increase of host resistance by some method other than vaccination, and development of treatment more effective than the time-honored aspirin and rest in bed.

One of the most common chronic respiratory diseases is chronic bronchitis and emphysema. As yet, relatively little is known about this disease, or more correctly, these diseases, because the exact relationship between chronic bronchitis and emphysema is not clear. Although emphysema seems to be secondary to chronic bronchitis in many cases, it may develop in the absence of bronchitis.

There seems to be a significant relationship between inhalation of chronic irritants such as tobacco smoke and development of chronic bronchitis. However, the etiology of chronic bronchitis is probably much more complex than this, and a great deal of research is needed to uncover the facts. A test or a technique for the early diagnosis of bronchitis and emphysema is also badly needed. Better yet would be the development of a means to determine constitutional susceptibility, if this really occurs.

Chronic bronchitis may be related to air pollution. Polluted air may be also a factor in the etiology of other respiratory diseases, including cancer of the lung. More exact information is needed so that the battle for pure air can be based on facts rather than clinical impressions.

Cancer of the lung continues to increase, and a crash program to control this common cause of death is needed. Obviously, our part in this battle should be planned in cooperation with the American Cancer Society.

Fungus diseases, such as histoplasmosis and coccidioidomycosis, and diseases of unknown etiology, such as sarcoidosis, are less common but are of serious significance to their victims. Some progress has been made in the chemotherapy of the fungus diseases, but more is needed before the treatment of them is as successful as the chemotherapy of tuberculosis.

Educational needs

Educational activities have always been a prominent part of the program of the Christmas Seal organization. This is as it should be, for the public benefits from health knowledge only when it is disseminated to the right groups.

Just as it is in the field of tuberculosis, so education of the public in the larger field of respiratory disease is of primary importance. Although our knowledge of respiratory diseases is incomplete, the average quality of medical care could be improved greatly if patients would take advantage of the facts that are already known. Many people believe that a chronic cough is of no significance and that shortness of breath on mild exertion is inevitable with age. The association of these and other symptoms with chronic respiratory diseases must be explained to the public through a basic, well-designed informational program that will lend itself to expansion as new information is brought to light.

Programs of professional education are equally important. Talented young men and women should be encouraged to enter the health field and their interest in respiratory disease should be stimulated. Establishing a full-time professorship in respiratory disease in each medical school is one

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of the best ways to recruit new workers into the field. Such a full-time professor could also collaborate with organizations in planning lectures and postgraduate courses for physicians, nurses and other paramedical specialists.

Lobbying, or education of legislators, is another important part of our respiratory disease program. Improvement of public health departments, or creation of them where none exist, remains one of our goals. Provision of medical care for the indigent is not always adequate, and we must urge the proper legislative body to provide the needed facilities. Control of air pollution requires new legislation in some places and enforcement of existing laws in others. We should offer to cooperate with official agencies in an effort to provide clean, safe air to everyone.

Combined programs

Certain programs, such as rehabilitation of respiratory cripples, are both research and educational in nature. Programs should be designed to determine whether such patients can be rehabilitated, and if this is found to be so, the findings should be demonstrated to appropriate official agencies responsible for rehabilitation of disabled persons. Efforts to develop techniques for mass surveys to detect bronchitis and emphysema are also both research and educational in nature.

In planning the foregoing projects, associations should avoid supplanting the public health agencies. Rather, the role of associations should be to determine the value of such programs. If they are found to be worthless, they should be dropped. If of value, an appropriate agency should take them over.

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We need not fear the fate of Alexander the Great, who was unhappy because there were no more worlds for him to conquer. As long as respiration remains a vital function, the respiratory system will be the site of disease, and mankind will need help in his search for relief. »

RD RESPIRATORY DISEASE

■ LIKE A SNOWBALL, the respiratory disease program has been gaining substance, size and momentum. Essentially, the RD program is still in its birth struggle, but exciting progress is being made all over the country. Following are a number of examples of the many directions in this field which are being undertaken by associations.

Board and staff education

Action in the field of respiratory diseases depends almost entirely on a well-informed board and staff. Leadership in this area has already been undertaken in such states as Maine, Oklahoma, North Carolina, Florida, New Jersey, New York, Pennsylvania, Massachusetts, California, and Connecticut. These states have held one or two-day meetings entirely devoted to the orientation of board and staff members to the various aspects of the respiratory disease field. In addition, most associations now include one or more sessions on respiratory diseases at all major meetings conducted throughout the year.

Committee activity has also been strong. For example, in New Jersey, the Chronic Respiratory Disease Committee of the New Jersey Tuberculosis and Health Association, Inc., has made the following recommendations: (1) full endorsement of the "Chronic Bronchitis Study" at Seton Hall University, (2) grant-in-aid to Middlesex County, N.J., for a fact-finding project (the Middlesex County Association is planning a joint research project in emphysema and chronic bronchitis with the Middlesex General Hospital), (3) promotion of a liaison with the Air Pollution Commission, (4) anti-smoking campaigns among youth.

In California, the program development committee of the state association set emphasis on the following elements for the current year: (1) statistical data on chronic diseases, (2) medical information on chronic respiratory diseases, (3) information on techniques of investigation, diagnosis, therapy, and treatment of these diseases, (4) preventive measures available, and (5) location of community facilities. The committee also requested that the booklet, *A Primer of Pulmonary Function,* be brought up to date so that the CTHA could reproduce it and make it available for educational purposes.

Medical education

One of the prime requisites in the development of a respiratory disease program is the development of a core of medically trained persons proficient in the diagnosis, care, and treatment of those who are afflicted with diseases of the respiratory system. Local associations are finding this a fruitful area and one in which they can take aggressive and productive action.

Activities in medical education take a variety of forms. For example, some associations are furnishing scholarships and stipends to local physicians to encourage attendance at post-graduate courses in pulmonary function, such as are conducted at Boston City Hospital. The Tuberculosis Association of Greater New Orleans co-sponsored a two-day medical seminar on "Mycobacterial and Mycotic Diseases" at Louisiana State University. In New Jersey, the state Tuberculosis and Health Association and the Hudson County Association support a teacher and coordinator of pulmonary disease teaching at Seton Hall University.

The Oklahoma Tuberculosis Association, in collaboration with county

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tuberculosis associations, has offered several pulmonary disease traineeships for medical students. These traineeships provide clinical experience in medical, surgical, preventive medicine, and radiographic aspects of pulmonary diseases. In addition, each student is allowed to work on a research project of his own choosing. Other associations are furnishing books on pulmonary diseases to medical libraries and reprints of pertinent articles to private physicians in order to stimulate interest and activity among private practitioners.

Medical research

The NTA and its affiliates have supported medical research in the area of pulmonary function and non-tuberculous respiratory diseases for many years. However, much more needs to be done. A vital, energetic research effort should be established, aimed not only at finding the specific causes of these diseases, but also at developing drug therapy, treatment regimens, and broadened rehabilitation concepts.

The challenge is there, and tuberculosis associations are fully aware of the need for allocating more and more funds to researchers and medical schools. For example, the local tuberculosis associations in Illinois and the Tuberculous Institute of Chicago and Cook County, with support from the funds of the now defunct Edwards Sanatorium at Naperville, Ill., have set up a joint tuberculosis research fund for support of research projects at medical schools in Illinois. Other associations are supporting local research projects or lending support to other specific projects in different states. All this support is above and beyond association allocations to NTA for medical research.

Programs

Attempts to develop mass-screening programs for the early detection of pulmonary insufficiency have received encouragement from the NTA Respiratory Disease Committee. A number of grants have been made in support of pilot screening projects. From the results of these projects, the NTA Committee hopes to learn more about mass screening for detecting early signs of pulmonary insufficiency. Those who have received grants are the Alabama association, the Queensboro County association (N.Y.), Westchester County association (N.Y.), Santa Clara association (Calif.), and the Los Angeles County association. A grant has also been given to the Arlington-Alexandria (Va.) association to conduct a pilot project to determine immunology levels for pertussis, diphtheria, and poliomyelitis in school children.

On their own, other states such as Illinois, Georgia, Oklahoma, Iowa, Michigan, and Missouri are conducting histoplasmin testing programs in conjunction with their tuberculin testing programs. In addition, associations such as Bangor-Brewer (Maine) and Central Connecticut have purchased pulmonary function equipment for their local hospitals to aid physicians in diagnostic work and in the evaluation of the breathing capacity of patients.

Community education

Community education in respiratory disease takes a myriad of forms, the type of project depending upon the group one is attempting to reach. All the techniques that are now used to conduct our tuberculosis education programs can be applied with equal vigor to the respiratory disease field.

Connecticut has prepared an exhibit on respiratory diseases with an accompanying brochure. An exhibit has also been prepared by Massachusetts. Illinois featured a spirometer at their state fair exhibit this year. A technician was available to demonstrate the equipment to the public so that they might become familiar with apparatus used in pulmonary function testing. Georgia has held a forum for the public on respiratory diseases at which pulmonary function equipment was demonstrated.

California and Pennsylvania have forged ahead in the development of health education materials. The Arizona association cooperated with the Arizona State Department of Health and the Maricopa County Health Department in publishing an issue of the *Arizona Public Health News* devoted entirely to coccidioidomycosis (March-April, 1959). Other associations have co-sponsored educational programs on air pollution and lung cancer in cooperation with local air pollution associations and cancer chapters interested in these specific problems. Films such as "Histoplasmosis" and "How to Catch a Cold" have been used extensively across the country. Public information programs on influenza immunization have also shared the spotlight.

RD on the march

In essence, the programs are still in their infancy. The seeds have been planted for productive programming in respiratory diseases. Much more needs to be done in rehabilitation and health education. Yet we can envision in the not-too-distant future a well-rounded, exciting, action-packed program in RD incorporating all the skills, techniques, and knowledge which we now use in our struggle against tuberculosis. «

G. WILLIAMS and B. BENNETT

In the program of the 1961 Annual Meeting, a number of sessions on various aspects of respiratory disease have been scheduled:

- *RD Program Opportunities*
- *Curbstone Conference*
- *RD Frontiers*
- *Rehabilitation Aspects of RD*
- *It's in the Air—Air Pollution*
- *Medical Sessions on RD*